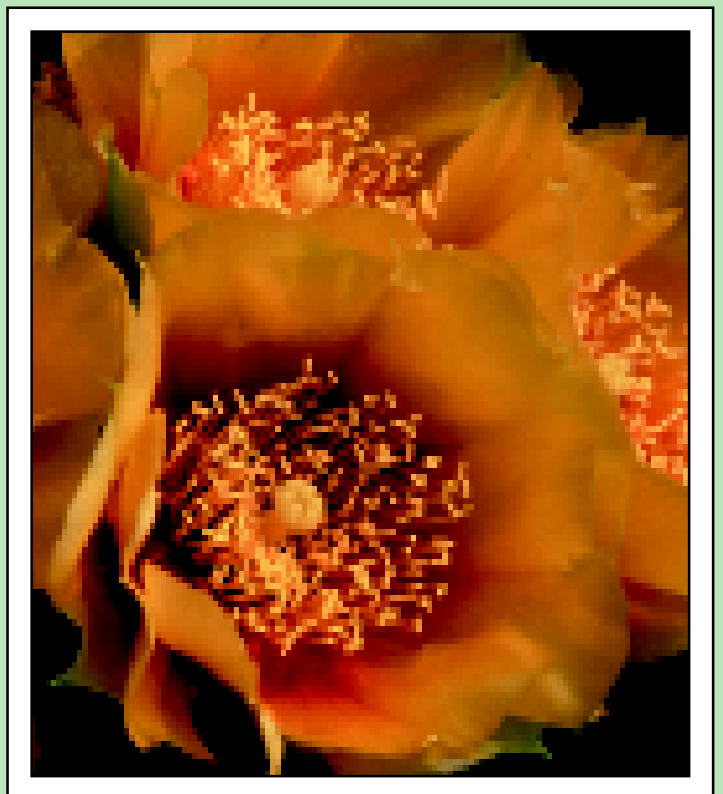
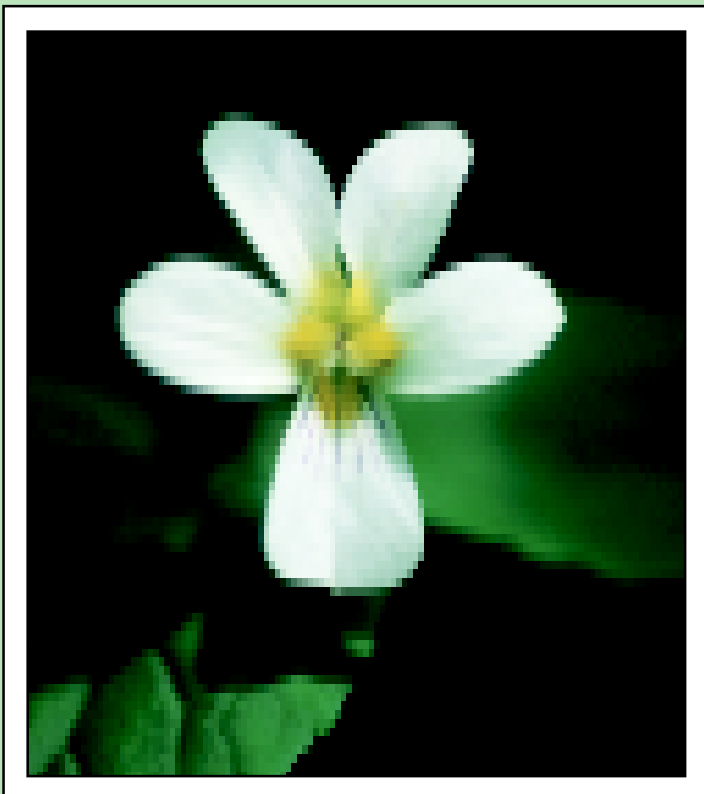
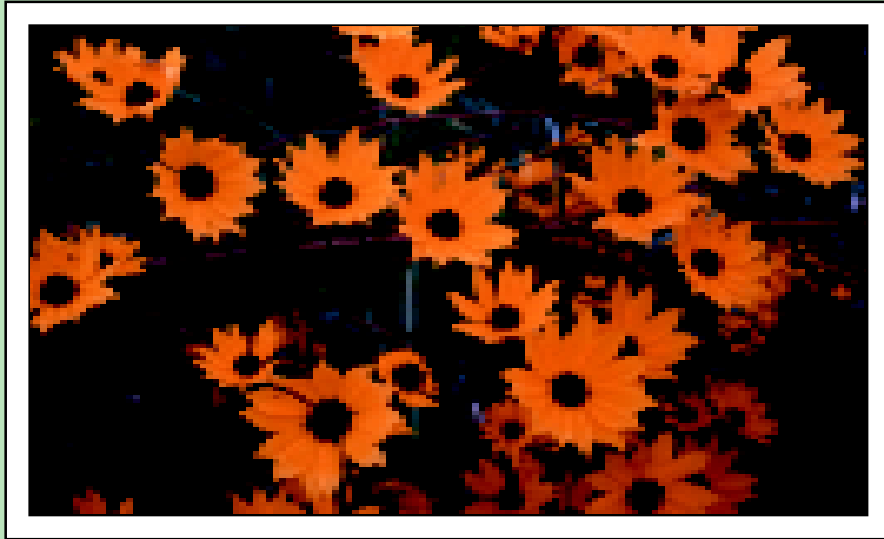


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# Land & Air & Water

Volume 11 Number 2  
Summer 2000



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Kentucky Natural Resources and Environmental Protection Cabinet

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# Land Air & Water

State of Kentucky  
Paul E. Patton, *Governor*

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## Learn how to save energy and money at cabinet's state fair booth



By Heather Frederick  
Public Information and Education Branch

Your power and water bills could take a nosedive after you stop by the Natural Resources and Environmental Protection Cabinet's booth at the Kentucky State Fair in August. This year, the cabinet will repeat its popular display that shows ways to conserve energy, water and other natural resources around your home.

The display features four rooms of a home. As you walk through each one, you can pick up valuable tips that can help reduce your utility bills. The garage offers advice for keeping your vehicle running efficiently. There's even advice on what types of environmentally friendly products you may want to use outside your home.

While you're learning about the environment, there's also a chance to win prizes you can put to use around your home. Our giveaways at the 1999 Kentucky State Fair included two water heaters, a bicycle, faucets, light dimmers, and even a toilet tank and bowl. To enter the contest, you must answer several trivia questions. You can find the right answers by touring our display.

We are planning some activities to keep your youngsters entertained while you tour the display, so bring them along.

We look forward to seeing you at our booth in the south wing of the Kentucky Fair and Exposition Center, August 17-27.

## Land Air & Water Online

Visit *Land, Air & Water* magazine on the World Wide Web at  
[www.nr.state.ky.us/nrepc/landairwater.htm](http://www.nr.state.ky.us/nrepc/landairwater.htm)

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# what's inside

Summer 2000

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## ON OUR COVER

(Top) Narrow-leaved sunflower (*Helianthus angustifolius*) at Barkley Airport Prairie State Natural Area, by the Nature Preserves Commission; (Left) Johnny-Jump-Up (*Viola kitaibeliana*) at Raven Run Nature Sanctuary by Melvin L. Dean III, Lexington; and (Right) eastern prickly pear cactus (*Opuntia humifusa*) by Thomas G. Barnes, University of Kentucky.

## About the spider . . .

Several readers were interested in the spider on the cover of the spring issue. It is a garden spider (*Argiope aurantia*) identified by Marty Bray, Nicholasville.



1-2



9-10



13

# Thousands get in the garbage



By Heather Frederick  
Public Information  
and Education Branch

Boy Scouts, garden clubs, state environmental inspectors and thousands of others joined forces in March to take out the trash in Kentucky. State employees and volunteers took part in Commonwealth Cleanup Week 2000 from March 18-25. The second annual event focused participants on Kentucky's trash problem and organized them to clean up illegal dumps, roadsides and waterways.

The event by the numbers:

**16,633 participants**  
**45,943 bags of trash collected**  
**210 illegal dumps cleaned**  
**58,067 tires collected**



Ricky Martin, Division of Forestry Campbellsville Regional Office, waits for a "Patton sled" to be pulled up a steep hillside. Employees of the state's Division of Waste Management designed the sleds after Gov. Paul Patton pointed out the need for a more efficient way to remove garbage from illegal dumps. Workers attached pulleys to the sleds to move them up and down hillsides.

*Photographs by Mark York and Heather Frederick*

**To report an illegal dump, call your  
county solid waste coordinator or  
(888) NO DUMPS.**



Large pieces of debris litter a hillside on Hanley Lane, which spans the Franklin-Woodford county line. The cabinet kicked off Commonwealth Cleanup Week 2000 with a cleanup event at this site.



James E. Bickford, secretary of the Natural Resources and Environmental Protection Cabinet, talks with a cabinet employee about the cleanup work being done at a site in Henry County.

# to clean up Kentucky

## Poster contest spreads the word

Students across the Commonwealth did their part to publicize Commonwealth Cleanup Week 2000. The youngsters submitted their artwork for a poster contest designed for the event. Judges selected winners at the school, county and state levels. Prizes ranged from T-shirts to savings bonds. State-level winners receive \$150 savings bonds and their schools receive a \$1,500 grant for environmental education. Since Bremen Elementary in Muhlenberg County had two state winners this year, it received a \$3,000 grant.

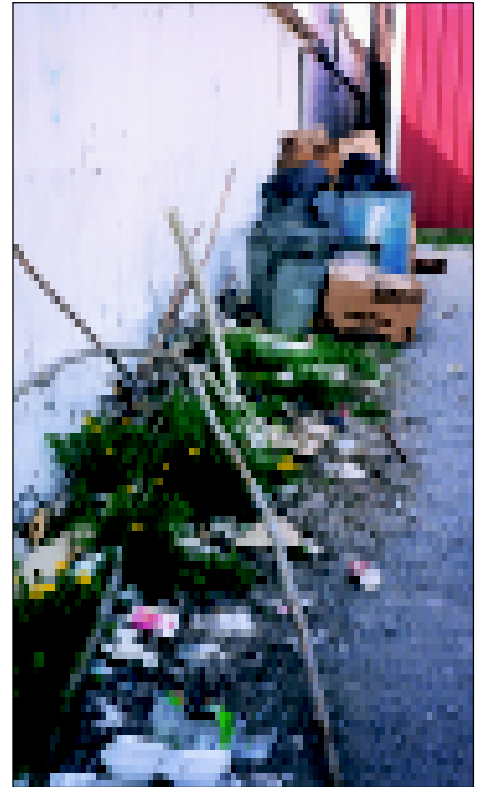
This year's winners are:

Taylor Hill, grades 1-2, Bremen Elementary, Muhlenberg County; Cody Wayne Stirsman, grades 3-5, Bremen Elementary, Muhlenberg County; and Vivian Richmond, grades 6-8, St. Leo, Woodford County.



First Lady Judi Patton and James E. Bickford, secretary of the Natural Resources and Environmental Protection Cabinet, stand with the winners of the 2000 Commonwealth Cleanup Week Poster Contest. Creative Services photo

Before . . .



After . . .



## Cash prizes offer extra incentive

The satisfaction of improving their environment wasn't the only reward for some Commonwealth Cleanup Week volunteers. This year, a prize drawing offered monetary rewards to nonprofit groups that completed cleanup projects they arranged with their county's solid waste coordinator. The coordinator verified each group's work before submitting its name for the prize drawing. Drawing organizers selected the winners at random from all eligible entries.

The winners of this year's three cash prizes are:

**First Prize \$500:** First Cedar Creek Baptist Church Youth Group (Adopt-A-Highway group), Nelson County.

**Second Prize \$250:** Southside Elementary School, Woodford County.

**Third Prize \$100:** Wolfe County Saddle Club.

(Top and right) A group of Harrison County Cub Scouts cleaned up trash behind a local business in Cynthiana.

Photos submitted by Jan Turner, cub scout leader



# Unpopular policies on air quality land U.S. EPA in court

There is no issue on this country's air pollution control agenda that has caused more controversy during the past several years than efforts of the U.S. Environmental Protection Agency (EPA) to achieve reductions in NO<sub>x</sub> emissions, especially from power plants. NO<sub>x</sub> (the chemical abbreviation for any of several oxides of nitrogen) is formed when nitrogen in fuels or in the atmosphere combines with oxygen during combustion. NO<sub>x</sub> is itself a pollutant of concern, but its role in other pollution problems is far more significant and controversial.

NO<sub>x</sub> contributes to the formation of acid rain, fine particulate matter, ozone and regional haze. It is emitted in huge quantities across the United States. Vehicles, large industrial boilers and electric utility generators all create large amounts of NO<sub>x</sub>. Because NO<sub>x</sub> contributes to so many environmental problems and is emitted in such large quantities, the EPA is making a concerted effort to reduce NO<sub>x</sub> emissions.

Steps to lower NO<sub>x</sub> emissions are part of EPA proposals to reduce the emission of compounds that form ozone, to reduce the emission of very fine particles that can be inhaled deeply into the lungs and to improve visibility. The EPA enforcement efforts against coal-burning utilities also aim to reduce NO<sub>x</sub> emissions. Coal-fired power plants could be forced to reduce their NO<sub>x</sub> emissions if current Department of Justice and EPA litigation efforts are upheld.

Northeastern states believe NO<sub>x</sub>

emissions from power plants and large industrial boilers in the Midwest and Southeast are contributing to violations of the ozone air quality standard in their states. The states cited these allegations in petitions filed with the EPA under Section 126 of the Clean Air Act. The EPA agreed with some of the allegations and named facilities in several states as sources of the problem. Some of those facilities being blamed for air quality problems in the Northeast are located in eastern Kentucky. Utilities east of Interstate 65 in Kentucky will have to drastically reduce NO<sub>x</sub> emissions in response to the EPA's decision. More legal petitions against utilities in Kentucky are pending before the EPA. If the EPA agrees with those allegations, utilities in the remainder of Kentucky will also have to reduce NO<sub>x</sub> emissions.

The EPA's proposed levels for NO<sub>x</sub> reductions have generated extreme resistance. Individual industries and utilities and their lobbying groups, state environmental quality agencies and state attorneys general have filed legal actions against the EPA regarding virtually all of its proposals. The U.S. Circuit Court of Appeals for the District of Columbia

**Steam rises from the Elmer Smith Power Plant in Owensboro operated by Owensboro Municipal Utilities (OMU). OMU is still studying how it might comply with the federal mandate at its plant. However, OMU has already achieved a 30 percent reduction in NO<sub>x</sub> since 1995 and a 95 percent reduction in sulfur dioxide at a cost estimated at \$147 million.** Division for Air Quality photo

ordered a delay in an EPA-ordered reduction of NO<sub>x</sub> in 22 states.

States, utilities and other business interests have filed new legal challenges opposing the EPA's approval of the Section 126 petitions. Power plants in the Midwest and Southeast continue their legal challenges to the EPA's assessment that they are contributing to ozone standard violations in the Northeast. Legal opposition to a new particulate matter standard may occur as enforcement of the standard begins. In addition, the EPA is responding to challenges of its new ozone standard by reinstating the old standard, even though the EPA declared it to be inadequate to meet legislative requirements for protecting human health.

As a result of these challenges, the EPA finds itself facing a determined alliance of regulated industries, utilities and state agencies. It may take years and several court rulings to determine the outcome.

*This article was principally authored by Ken Hines, former manager, Division for Air Quality Program Planning and Administration Branch.*



# Division's goals are airborne

By Heather Frederick  
Public Information and Education Branch

A look into the future means all eyes are on the skies at the Division for Air Quality (DAQ). Division Director John Hornback focused his employees' attention on his goals for the division during an agency workshop in April.

Those goals included:

- **Bringing Louisville into compliance with ozone**

**standards established by the U.S. Environmental Protection Agency (EPA).** Ozone is a colorless gas found in the air we breathe. Ozone is due in part to emissions from vehicles, some industries, off-road engines (such as those in aircraft and garden equipment) and other sources. The EPA established acceptable levels of ozone to prevent health problems the gas can cause. Cities such as Louisville are especially susceptible to unacceptable ozone levels because of their concentrations of traffic and industry. Despite its vehicle emissions testing program and its efforts to reduce industry emissions, the area continues to have problems meeting the air quality standard. Last fall, Kentucky committed to reduce utility emissions statewide by May 2003 in a continuing effort to meet the standard in the Louisville area.

- **Addressing ozone problems statewide.** The EPA issued a new, more stringent ozone standard in 1997. It is based on an 8-hour average of ozone readings. The EPA gave the Division for Air Quality three years to conduct monitoring and designate areas as either meeting or not meeting the new standard. With its monitoring complete, the Division for Air Quality has begun the process of determining which areas do not meet the new standard. Kentucky is required to submit a proposed list of these areas to the EPA by the end of June. However, a federal court in the District of Columbia has issued an order that prohibits the EPA from enforcing the 8-hour ozone standard. It is unclear when Kentucky will be required to take further actions to address this statewide ozone issue, but current federal mandates for emission reduction are expected to reduce ozone to more healthy levels.

- **Beginning to address regional haze issues.** The EPA passed a regional haze and visibility regulation in 1999. This regulation is designed to address hazy conditions across the United States. States are required to make incremental progress in improving visibility. Kentucky will work with several other

southeastern states to assess this problem and look for solutions. Many of the EPA's existing programs will reduce emissions that currently contribute to haze.

- **Continuing to reduce risks from toxic air pollutants.**

Kentucky adopts federal toxic air pollutant standards as they are issued. However, those standards address only certain com-

pounds being emitted from certain types of facilities. Beyond the federal program, states have an obligation to review existing and proposed facilities to ensure that their emissions will not adversely impact public health or the environment. Developing an

improved process for reviewing the risks of air emissions is a priority for the division.

- **Completing development of new data systems to enhance permitting and inspections.** Kentucky has issued thousands of air permits and conducted thousands of inspections. The accessibility of data on these activities has sometimes been limited. The Division for Air Quality is attempting to develop more streamlined systems that are more efficient in providing customer service. The division is also striving to develop an electronic permit application system. This system will be made possible by EMPOWER Kentucky, Gov. Paul Patton's initiative to improve the delivery of service by state government agencies.

- **Improving the availability of environmental information to the public.** The Division for Air Quality has an active outreach and public education program, but it is always looking for ways to improve its efforts. The division is working to improve its Web site to include more useful information for the public. Division employees are also striving to develop a Web page that provides the public with air quality data that is almost "real-time." Later this summer, the public should have access to current-day air monitoring information on the division's Web site.

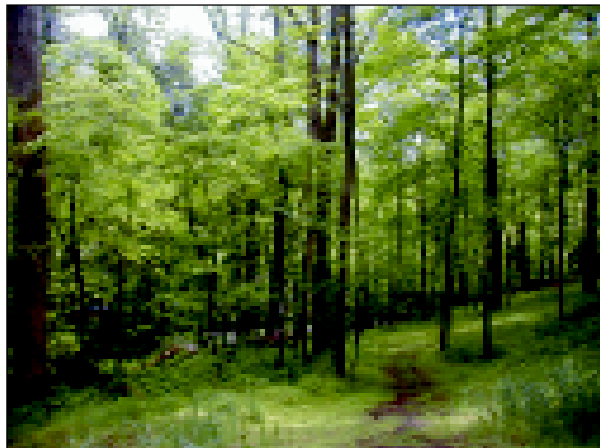
Hornback outlined these goals during a meeting of more than 150 DAQ employees at Georgetown College. "This combination of customer service and environmental improvements will occupy a significant amount of our thoughts and efforts in the next couple of years," Hornback said. "Working to achieve these goals is very important to meeting our obligations to ensure an informed public and a healthy environment while also meeting the needs of Kentucky businesses."



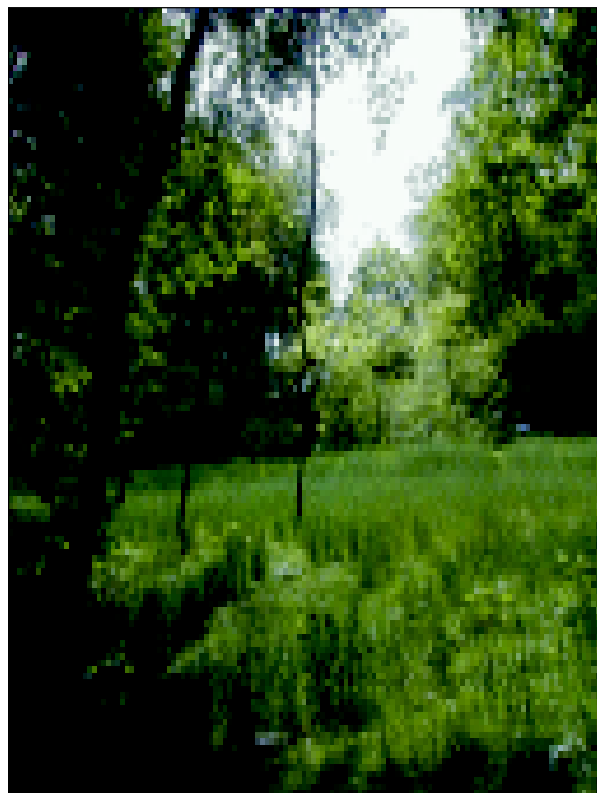
(Top) An air monitoring station in northern Kentucky. (Above) Inside the station are ozone, carbon monoxide and oxides of nitrogen monitors. Division for Air Quality photo

# State's largest illegal dump is history

By Heather Frederick  
Public Information and Education Branch



(Left) An area once covered by trash now features a walking path surrounded by grass. (Right) This grassy hillside was once littered by garbage. (Below) Garbage like this once covered Highway 3051 in Floyd County, Kentucky. Photos by Heather Frederick



Walk along Highway 3051 in the small town of Auxier, Kentucky, on a spring afternoon and you will see the natural beauty that makes eastern Kentucky special. The sun filters through tall trees and down steep slopes, and chirping birds provide the melody for your scenic tour. Tall strands of grass sway in the breeze, and water trickles over rock walls that shoulder the road.

This great scenery was only a dream until recently. In 1999, and for decades before, trash littered the steep hillsides along Highway 3051. Bags of trash, bottles and cans, appliances, tires and car gas tanks tarnished the landscape, carelessly thrown away by people who considered this rural road to be their personal dumping ground. The evidence of their illegal dumping covered the ground along a mile of Highway 3051. The site was believed to be the state's largest illegal dump. Now, it's history.

In May, James E. Bickford, secretary of the Natural Resources and Environmental Protection Cabinet, announced the end

of cleanup efforts at the Auxier dumpsite. "The transformation here is truly amazing," Bickford said. "The contractor has done a terrific job of restoring the natural beauty of this area."

The contractor for the site, Enviro-Pro, spent six months undoing the work of illegal dumpers. Enviro-Pro workers removed 7,000 tons of appliances and household trash from the site, along with 18,000 tires and the bodies of 20 cars.

Cleanup costs totaled \$1 million. Funding for the project came from

\$1 million in restitution paid by the Laurel Ridge Landfill, LLC, a subsidiary of Waste Management. In May 1999, Laurel Ridge Landfill pleaded guilty to misdemeanor violations of the federal Clean Water Act and agreed to perform \$1 million in restitution as a condition of probation. The violations were not related to the Auxier dumpsite.

After cleaning up the dumpsite, Enviro-Pro applied 1,200 pounds of grass seed to the area, along with wildflower seed. Local leaders have closed Auxier

Road to prevent more illegal dumping in the area.

The cabinet targeted the Auxier dump as part of its illegal dumping initiative, which began in 1997. Cabinet investigators use hidden cameras and other means to identify and prosecute illegal dumpers. The cabinet has issued more than 2,400 notices of violation to illegal dumpers since the initiative began.

At the news conference to showcase the completed Auxier cleanup, Secretary Bickford announced that the cabinet has set its sights on getting mandatory garbage collection and recycling legislation passed during the next session of the Kentucky General Assembly. "We don't want to see more dumps like this in the Commonwealth," Bickford said. "I believe mandatory garbage collection and statewide recycling are an important part of our efforts to bring an end to illegal dumping in this state."

- To see photos of illegal dumpers the cabinet has not been able to identify, visit: <http://www.nr.state.ky.us/nrepc/dumpphotos.asp>
- To see photos of illegal dumps, visit: <http://www.kyeqc.net/dumps/index.html>



# Cooperating to protect watersheds

By Lee Colten  
Division of Water

Students in Rowan County make interesting discoveries, while a group in Jefferson County uses the Internet to spread its message. A team in central Kentucky charts a course, while a group in western Kentucky prepares to get down to business.

These activities are all part of watershed protection. (For an explanation of what a watershed is, see the box at right.)

Groups that want to protect watersheds are part of the Watershed Management Framework, a program administered by the Kentucky Division of Water. The framework is designed to foster cooperative efforts by bringing together state and federal agencies, nonprofit organizations and volunteers to protect and improve water quality. These groups of government employees and citizens work in the state's major river basins as "river basin teams." Each team meets regularly to coordinate activities, and identify and address issues specific to their basin.

Here's a look at activities going on in several river basins of the state:

## Kentucky River Basin: Mapping a Course

This group has completed its first monitoring effort and has assessed the data it collected. Group members are putting that data together into a report that will help to identify the most urgent problems in the Kentucky River Basin. The group plans to release this assessment report in the latter part of the summer.

The Kentucky River Basin Team plans to use the report to identify priority watersheds and address the most pressing problems within the Kentucky River Basin. The report and the priority watersheds will map a course for agencies in addressing the many watershed problems that exist. The Kentucky River Basin Team is a technical group composed of citizens and representatives from several natural resource agencies; there is a similar team in each of the major basins of the state that is a part of the Watershed Management Framework.

The Division of Water has already electronically submitted this data to the EPA as a part of its reporting requirement under Section 305(b) of the Clean Water Act. The paper version of the 305(b) report will be published in mid-summer 2000.

## Licking River Basin: Students' Discovery and Data Collection

Young people in Rowan County do their part to protect their watershed. Students at Rowan County High School found high

## What is a watershed?

No matter where you live, work or play, you are in a watershed. A watershed is a geographic area where all water running off the land drains to a specific location. This location may be a stream, river, lake, wetland or ocean, or the water may drain underground into the groundwater. You may live on a creek, which is in a small watershed. Your creek may join a river, which is in a larger watershed. The river may have many smaller creeks, known as tributaries, that drain into it and each of these tributaries has a small watershed associated with it, and each is part of the larger watershed of the river.

levels of fecal coliform in the water samples they collected. The students have asked the Kentucky Division of Water to help them find the source of this bacteria. They also received assistance from the Gateway District Health Department in putting their data on the Internet. It can be found at <http://pros.eastky.net/mmaddox/savor.html?county=Rowan>.

Those students aren't the only ones collecting data in this river basin. The agency partners now have a year of biological and chemical samples from streams in the Licking River Basin and adjacent Ohio River tributaries. Scientists will spend several months translating the data into conclusions about the health of the many small watersheds within the basin. In addition to this biological and chemical data, volunteers have gathered two years of other data about streams in their watershed. They plan to collect a

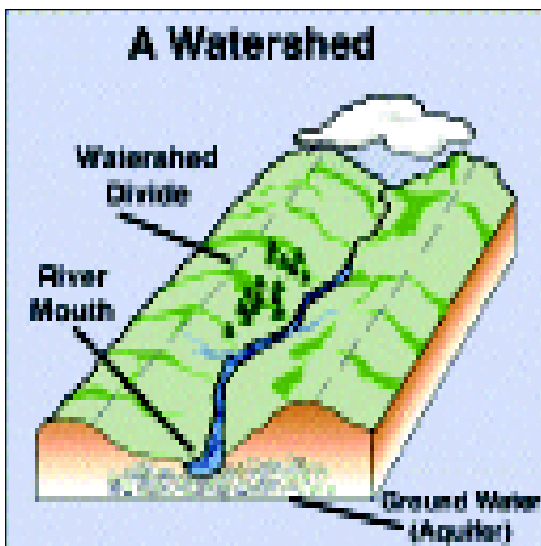
third set of samples this summer and review their results in November at a conference at Blue Licks State Park.

## Salt River Basin: Floyds Fork Goes Electronic

What types of fish live in Floyds Fork in eastern Jefferson County? Where can you launch your canoe in the creek? What's the history of the area that the stream flows through?

Students at Eastern High School have the answers to those

*Continued on Page 7*



Two other Watershed Management Framework teams will be part of the efforts to protect Kentucky's water quality:

- **The Green/Tradewater Team forms in July 2000.**
- **The Big Sandy/Little Sandy/Tygarts Team starts its work in July 2001.**

# Cooperating to protect watersheds *Continued from Page 6*

questions and have made them available online. A group of almost 200 young people developed a Web site about Floyds Fork. It includes information on the watershed's water resources, wildlife, flora, soil and geology. You can also learn about transportation corridors, land use, area history and recreational opportunities on this Web site. The site can be found on the Internet at [www.floydsfork.org](http://www.floydsfork.org).

A grant from the Kentucky Department of Local Government allowed students to develop the Web site. They got assistance from the Jefferson County Metropolitan Sewer District, Louisville/ Jefferson County Information Consortium (LOJIC), Jefferson County Public School System's Environmental Education Center and Jefferson County Department of Planning and Development Services. Others that lent a helping hand include the Kentucky Institute for the Environment and Sustainable Development and Kathy Wynn Inc., a consulting firm.

Eastern High School is a magnet school for computer science. Students participating in the Web site project were in a computer class but had little background in environmental sciences before the project began. Floyds Fork is the last watershed in Jefferson County that remains relatively undeveloped; however, development pressures are now threatening the watershed.

The Web site includes the most comprehensive collection of data of any stream in the state. The Salt River Basin Team is interested in working with other schools in the basin to develop similar Web sites of other segments of the watershed and then linking them to form a comprehensive overview of the entire watershed. Those interested in helping in this effort should contact Russ Barnett,

(502) 852-1851.

A similar Web site has been developed for Beargrass Creek, and the team has submitted a proposal for a Web site about the main stem of the Salt River. Students at Spencer County High School would work on that project.

## **Upper Cumberland and Four Rivers Region: Teams Begin Their Initial Work**

One of the first steps in the Watershed Management Framework is putting together a team to address the problems in a given area. Two new teams of experts

Four Rivers Basin Team, says the team needs the help of all public agencies, civic organizations, local and county representatives and individuals who are concerned about environmental quality in the region. "We want to find team members with some science background or citizens who want to help protect and solve problems currently affecting these river basins," Wise said.

Wise says the two teams have gotten a start on addressing the problems in this area. The teams recently completed a basin status report and monitoring strategy for this region. It contains information on

the condition of waterways in the Cumberland River Basin and the Four Rivers Region. It also tells what residents of the area can do to help and where to find more details about the watershed and about watershed management.

The Cumberland River Basin and Four Rivers Region Status Report is meant to provide the public with background information on the watershed and to assist the Cumberland and Four Rivers basin teams in communicating needs in the basin. It includes descriptions of the area, lists of

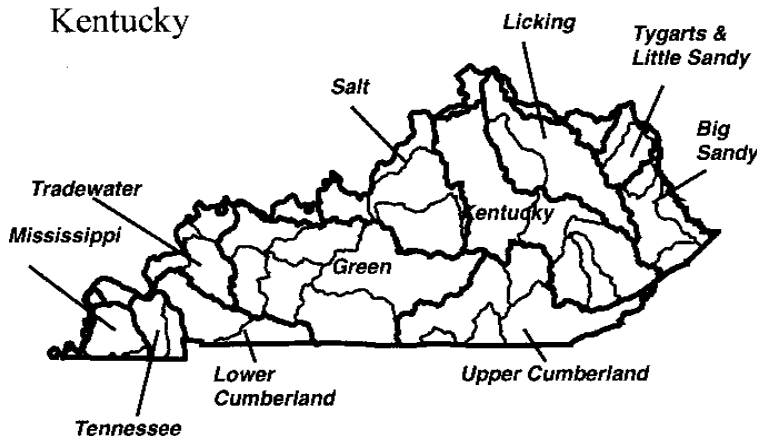
impaired streams and the sources of pollutants that impact water quality.

"Our goal is to bring people in the priority watershed together," Wise said. "We will work to raise the environmental quality of the basin to an optimum level through cooperation and education of all those concerned."

To express interest in joining the Upper Cumberland or Four Rivers teams, contact Bob Wise at (270) 554-1022.

For a copy of the teams' report, write to Lee Colten, Kentucky Division of Water, 14 Reilly Road, Frankfort, KY 40601 or call him at (502) 564-3410. You can also access the report on the Internet at <http://kywatersheds.org>.

## **Major River Basins of Kentucky**



and volunteers recently formed to work in the Upper Cumberland and Four Rivers Region.

The first team represents the Upper Cumberland; this basin's headwaters begin in Harlan County, then flow southwest into Tennessee. The Cumberland River then re-enters Kentucky at Lake Barkley in the western part of the state. The second team, or the "Four Rivers" Basin Team, covers this lower portion of the basin, as well as the Lower Tennessee and tributaries to the Mississippi and Ohio rivers.

The teams' formation doesn't mean it's too late to get involved in identifying and solving the problems in this watershed. Robert Wise, coordinator for the

# Legislation affecting cabinet from 2000 General Assembly

By Mark York  
Office of the Secretary

*Water, waste and air were the targets of some of the record 1,441 bills considered during the 2000 General Assembly. The legislature passed one third of the bills, including several that will impact the environment.*

❖ Regionalization of water and sewer plants in Kentucky received a push from Senate Bill (SB) 409, sponsored by Sen. Dan Kelly, R-Springfield. SB 409, Gov. Paul Patton's Water Resources Bill, contains provisions to meet the governor's goal of providing safe drinking water to all Kentuckians in 20 years.

The bill provides more responsibility for the Kentucky Infrastructure Authority in the planning, reviewing and funding of water and sewer projects in the state. The bill also created water management planning councils that will work with area development districts on future water planning needs.

SB 409 also contains provisions that encourage regionalization. Regionalization is the process of combining several small water and sewer districts into one larger, regional district. Across Kentucky, many small sewer and water districts have failing or inadequate systems that communities don't have the financial resources to repair and upgrade. Regionalization allows communities to combine their financial resources for an adequate, more efficient system.

❖ Also enacted by the legislature was House Bill (HB) 643, cabinet legislation that extended the collection of the Hazardous Waste Assessment Fee until the year 2002. The fee is collected from producers of hazardous waste in the state. Funds generated by the fee pay for the cleanup of hundreds of hazardous waste sites across the state. They also fund the state Superfund Program and pay for Kentucky's Environmental Response Team, which responds to emergencies like oil and chemical spills.

Extension of the Hazardous Waste Assessment Fee was critical, since current cleanups at hazardous waste sites will require an additional \$5.8 million to complete. HB 643 allowed for the extension of the fee until June 30, 2002.

❖ Several bills were enacted to

address vehicle emissions testing. These testing programs are currently operating in Jefferson, Boone, Kenton and Campbell counties.

House Bill 236 excludes motorcycles from testing programs. House Bill 314 creates a reciprocal certificate program. This bill allows emissions testing programs in Kentucky to recognize test results from other states for persons moving into the Commonwealth. The bill also exempts vehicles registered to active duty military personnel from the requirements of emission testing programs.

❖ The Kentucky River Authority has been moved from the Natural Resources and Environmental Protection Cabinet (NREPC) to the Finance and Administration Cabinet under House Bill 543. Plans that the authority develops are to be included in reports to legislative committees, while a floor amendment to the bill instructs the authority to coordinate planning with the NREPC.

❖ Some notable bills affecting the environment failed to win the legislature's approval. These include House Bill (HB) 1, the so-called "bottle bill." Introduced by Rep. Greg Stumbo, D-Prestonsburg, HB 1 called for a deposit for certain beverage containers, door-to-door garbage pickup statewide and a small tax on fast food wrappers and packages. After spirited debate, HB 1 was defeated by a vote of 41-54.

❖ Stumbo also sponsored House Bill 745, which would have created a constitutional amendment for a statewide referendum for a container deposit program. This would have given the public the chance to approve or reject the "bottle bill" concept. Although the measure passed the House, it died in a Senate committee at the end of the session.

❖ Two bills relating to Concentrated Animal Feeding Operations (CAFOs) were introduced, but failed to pass. House Bill 940 would have eliminated integrator liability for CAFOs. Integrator liability holds the owner of the animals (often a corporation, not the farmer) jointly liable for environmental damage caused by a CAFO. HB 940 would also have changed requirements for how far CAFO barns and waste lagoons must be from neighboring property and waterways. The sole purpose of House Bill 948 was to eliminate integrator liability.

Although HB 940 passed a House committee, it was eventually reassigned to another committee and withdrawn. The committee did not pass HB 948.

Gov. Patton has signed an emergency regulation related to CAFOs, and the cabinet is drafting a permanent regulation on the issue. Either bill would have superceded the cabinet's regulation. (See Pages 9 & 10 for additional information on CAFOs.)



**Fees collected from producers of hazardous waste will help to clean up sites like this one in Graves County.** Division of Waste Management photo

# Growing industry, growing problems

## Cabinet proposes permitting system and regulation for animal feeding operations

By Heather Frederick  
Public Information and Education Branch



**100,000 laying hens  
or broilers  
2,500 feeder pigs  
1,000 beef cattle  
700 dairy cattle**



In general, those are the numbers of animals a farm must have to be classified by the Natural Resources and Environmental Protection Cabinet as a concentrated animal feeding operation (CAFO).

These facilities are a growing industry in the Commonwealth, and they produce large amounts of animal waste. That waste poses an imminent threat to public health and welfare because of the proven potential of water contamination. These water quality concerns prompted the cabinet to draft an emergency regulation that was signed by Gov. Paul Patton on Feb. 11, 2000. Now the cabinet is in the process of instituting a permanent regulation that is based on the contents of the emergency regulation.

(Above) An example of improper storage of poultry litter in McLean County. (Above right and right) Broilers feed from nipple feeders containing food and water inside a poultry house.

*Photographs by Peyton Adams, Julie Duncan and Heather Frederick*

The requirements of the permanent regulation would be included in a proposed permitting system for CAFOs. Most CAFOs

would fall under a single, general state-wide permit. Some would be required to apply for individual permits. The cabinet has been directed by the EPA to establish a permitting system for CAFOs.

Statistics on waste production at CAFOs put the need for these permits and a regulation in perspective. At least 1.25 million gallons of waste per year will be produced by 2,500 feeder pigs, which is the minimum number of those animals required to be classified as a CAFO. One poultry house creates at least 150 tons of litter per year—and a poultry CAFO often has a minimum of four houses, producing at least 600 tons of litter a year.

Poultry litter is often stored outside, where it is exposed to rainfall that can lead to runoff. This runoff contains nitrogen and phosphorus, which can contaminate drinking water supplies drawn from



groundwater.

Swine waste is stored in lagoons. If these lagoons are not maintained properly or overflow, the waste can fill and contaminate streams. The cabinet has already seen this happen in Kentucky.

"We must have a regulation in place to prevent the improper handling of this waste and prevent substantial damage to the environment," said James E. Bickford,

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**"We are not against farmers, but we must balance their right to do business with the rights of the citizens of the Commonwealth, to clean land, air and water, and to an environment that is free of public health risks."**

James E. Bickford

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secretary of the Natural Resources and Environmental Protection Cabinet. "This regulation is focused on prevention of damage to our waters and on making sure that the huge amounts of waste are properly handled."

There are three main tools the regulation uses to address the potential water quality problems posed by these operations:

First are siting criteria. The regulation prescribes that barns and lagoons must be located a certain distance away from lakes, rivers, streams, wells and homes. There are also guidelines regarding the use of animal waste as fertilizer. These guidelines



participation or direct supervision.

Under the proposed regulation, integrators must jointly apply for a CAFO permit with the farmer who will raise the animals. Those who own the chickens, hogs and cattle would be jointly and equally liable for environmental damage caused by the concentrated animal feeding operation in which their animals are located.

"If the farmer has an environmental problem that results in a fine or goes bankrupt, the integrator will share the responsibility for disposing of dead animals and waste that the farmer cannot afford to address," said Secretary Bickford. "The state will not get stuck with cleaning up the mess, and the taxpayers will not get stuck with paying the bill for the cleanup."

The cabinet held four initial hearings on its proposed permitting system and draft regulation in March. The cabinet has considered the comments received at those hearings and plans to file a proposed



include specifications of how close the land application of animal waste can come to water sources and dwellings of others.

The second tool in the regulation is permanent storage for poultry waste, which is often referred to as litter. The regulation requires that a permanent building be constructed for the storage of this litter. This will stop the exposure of the waste to rainfall, which can lead to runoff and impact water quality.

The final key element in the regulation is integrator liability. The EPA considers an integrator to be an entity that owns the animals, specifies how the animals are grown, fed or medicated, or directs employees at the CAFO through on-site



regulation with the Legislative Research Committee by mid-July. More public hearings will be held at the end of the summer. The permitting system and permanent regulation could be in place by the end of 2000.

"We are not against farmers, but we must balance their right to do business with the rights of the citizens of the Commonwealth to clean land, air and water, and to an environment that is free of public health risks," Bickford said. "We believe our regulation balances these rights and fulfills our responsibilities."



(Top, above left and right) A swine waste lagoon, hogs at a CAFO and swine barns in Hopkins County.

(Left) An example of a permanent storage facility for poultry litter. Such facilities would be required under the proposed regulation.



# Five years of air quality aid for small businesses

By Rose Marie Wilmoth  
Air Quality Representative  
Dept. for Environmental Protection

This article is based on an interview conducted with Greg Copley, who has been the director of the Kentucky Business Environmental Assistance Program (KBEAP) since it began more than five years ago.

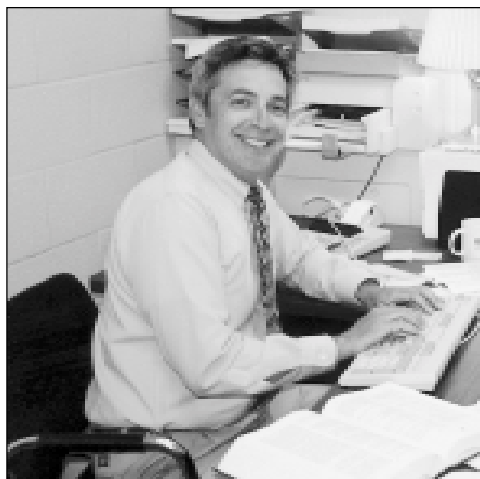
The KBEAP is the core of the Small Business Assistance Program, which is required by the Clean Air Act Amendments (CAA) of 1990 to assist small businesses. Its primary job is to provide technical assistance to small businesses to bring them into compliance with air quality regulations.

The program is located at the Small Business Development Center in the Gatton College of Business and Economics at the University of Kentucky. The KBEAP is funded by the Division for Air Quality (DAQ) to provide services to small businesses.

The Small Business Stationary Source Compliance Advisory Panel and the Air Quality Representative for Small Business make up the remainder of the Small Business Assistance Program. The panel has 11 members appointed by Gov. Paul Patton to represent a variety of interests. It assists in outreach and evaluates the work of the KBEAP and the air quality representative.

The air quality representative provides public information and education about the free services available to comply with the Clean Air Act and staffs the advisory panel.

The Division for Air Quality is also an important contributor to the program and refers many small businesses to the KBEAP.



improve air quality. When I was a DAQ inspector, small businesses were the hardest to cite. After giving them direction, they had no problem complying. I saw this new program as an opportunity to provide assistance before a small company had to experience an enforcement hearing.

**Wilmoth:** After five years what are the program's successes?

**Copley:** The program is successful at improving air quality, obtaining more accurate emissions data and helping to change the view of what environmental protection is about. The Small Business Development Centers are also more aware that they have a duty to inform their clients about environmental compliance.

**Wilmoth:** What do you think the needs of small businesses are with regard to air quality?

**Copley:** Small businesses want one-on-one attention, Rose Marie. Although the general process is the same, each one has a different twist that requires an on-site visit. Ultimately, small businesses want peace of mind when it comes to environmental compliance.

**Wilmoth:** What is the value of the advisory panel and the air quality representative to your program?

# Q&A

**Greg Copley**

KBEAP Director

**Wilmoth:**

Greg, why did you pursue the director's job?

**Copley:** I realized that this CAA program would provide a different approach to

**Copley:** Both offer recommendations on how to reach the small business community. I believe efforts to reach small businesses haven't scratched the surface. The panel is also a source of encouragement when the number of businesses served is not as high as everyone would like.

**Wilmoth:** What regulatory issues will small businesses face in the future?

**Copley:** They will need to address compliance with new regulations for small boilers and ozone non-attainment issues.

**Wilmoth:** What has been the most unexpected part of implementing the program?

**Copley:** I had a preconceived idea that when I opened the doors to offer this service, small businesses would pour in. I did not realize how reluctant they would be to deal with environmental regulation or how much outreach would be needed.

**Wilmoth:** What techniques are you using to market the KBEAP?

**Copley:** I continually seek new ways to market the program. KBEAP is in partnerships with the Chamber of Commerce, Associated Industries of Kentucky, Economic Development Cabinet, Kentucky Pollution Prevention Center and Kentucky Department of Agriculture. Working with these state organizations is a valuable method of spreading the word.

**Wilmoth:** Who is eligible for on-site assistance from the program?

**Copley:** A business with less than 100 employees and independently owned is eligible for air quality on-site technical and compliance assistance from KBEAP free of charge. For more information, call me (Greg Copley) at (800)562-2327.

# Grant program helps schools and hospitals save energy

Stories by Karen Landry  
Division of Energy

Schools, hospitals and government agencies will experience lower utility costs thanks to grants from the Kentucky Division of Energy. More than \$738,000 went to facilities across Kentucky this spring as part of a program to help save energy.

The Division of Energy awarded 21 contracts in the 21<sup>st</sup> cycle of its Institutional Conservation Program (ICP). The 50-50 matching grant program helps to fund technical assistance (TAs) studies and energy conservation measures (ECMs).

The technical assistance study grants are used to generate a comprehensive planning document. The document identifies operations and maintenance changes that have immediate paybacks and energy conservation measures that will save money down the road.

The grants for energy conservation measures fund the design, acquisition and installation of major building improvements recommended in the technical assistance study. Those improvements have helped schools and hospitals in Kentucky save an average of 25 percent on their annual energy costs throughout the program's history. Typical energy conservation measures include replacing inefficient windows, lighting and heating/cooling systems.

The most recent funding cycle generated 11 grants for TA studies, totaling \$116,273. The Division of Energy awarded 10 grants for ECMs, totaling \$622,049. Recipients and the amounts they received are listed on the right.

For more information on the program, contact Eddie Riddle, Division of Energy, (502) 564-7192 or (800) 282-0868 or visit the division's Web site at <http://www.nr.state.ky.us/nrepc/dnr/energy/dnrdoe.html>

	Project Total	Grant Amt.
<b>Breckinridge Memorial Hospital</b>		
ECM	\$103,341	\$42,000
TA	7,500	3,750
<b>Carter County Board of Education</b>		
ECM	167,599	83,799
TA	22,994	11,497
<b>City of Bowling Green</b>		
ECM	210,065	92,156
TA	17,920	8,960
<b>Holy Cross High School</b>		
TA	3,010	2,709
<b>Jefferson Community College</b>		
TA	47,628	23,814
<b>Lincoln County Board of Education</b>		
ECM	212,067	72,733
TA	47,600	23,800
<b>Logan County Board of Education</b>		
ECM	369,900	126,000
TA	23,700	11,850
<b>McLean County Board of Education</b>		
TA	4,400	3,960
<b>Metcalfe County Board of Education</b>		
ECM	68,968	42,000
TA	9,200	8,280
<b>Morehead State University</b>		
ECM	10,675	5,337
<b>Murray-Calloway County Hospital</b>		
ECM	46,287	23,143
TA	9,257	4,628
<b>Paducah Wastewater Treatment Plant</b>		
ECM	345,770	42,000
<b>Warren County Fiscal Court</b>		
ECM	189,640	92,881

## Workshop offered for state and local government officials

The Kentucky Division of Energy is conducting a 1½ - day workshop at Dale Hollow State Park, Oct. 5-6, 2000, to provide training and information about Guaranteed Energy Savings Performance Contracting (ESPC) for state and local government officials. This workshop is open to the public.

**Who should attend?** Decision makers, administrators and maintenance directors from schools, colleges, hospitals and local governments should attend one of these workshops to learn more about the benefits of performance contracting, while also learning the do's and don'ts of negotiating contracts.

**Why is it important to learn about performance contracting?** State legislation has established the basis for an energy efficiency program in state and local government buildings and authorizes guaranteed energy savings performance contracts, which

can include private sector financing to fund these programs. Government officials must have a sound knowledge of the principals of such contracts and the know-how to negotiate the best deal possible. Energy savings performance contracting allows an agency to make necessary building improvements even when capital funds are not available.

The workshop will feature speakers from the U.S. Department of Energy's Rebuild America Financial Services, local and state governments, school districts and energy service companies. The agenda also will include an update of energy savings performance contracting projects in Kentucky and success stories.

For more workshop information, contact Eddie Riddle, Division of Energy, at (800) 282-0868.

# First Lady plants historic trees in Frankfort

By Gwen Holt  
Division of Forestry

This spring, the Commonwealth of Kentucky received a historic gift. U.S. Secretary of Agriculture Dan Glickman gave 100 historically significant trees to every state and territory for the establishment of "Millennium Groves."

Each tree is a direct offspring of a historic "parent" tree. Parent trees included:

- tulip poplars planted by George Washington in 1785.
- white oaks from the log cabin site in Larue County where Abraham Lincoln, our 16th president, played as a child.
- grand sycamores from Selma, Alabama, where Martin Luther King Jr. and his followers gathered.
- red buds from Warm Springs, Georgia, where Franklin D. Roosevelt sought rest and relaxation.
- white ash trees from Harriet Beecher Stowe's residence in Cincinnati, Ohio (author of "Uncle Tom's Cabin").

During the Kentucky Arbor Day ceremony on April 7, participants planted Kentucky's Millennium Grove at Berry Hill Mansion in Frankfort. First Lady Judi Patton kicked off the celebration along with state and local officials, local Boy and Girl Scouts, garden club representatives and Kentucky Division of Forestry representatives.

"What a special gift the state has received from the U.S. Secretary of Agriculture," Mrs. Patton said. "These trees not only improve our environment,



**"These trees not only improve our environment, but they also remind us of our country's rich history."**

Judi Patton

community environments for the new millennium. Millennium Green projects include planting and adopting trees and forests.

The Millennium Green project is important because trees, forests, gardens, streams, wetlands and green spaces contribute to our quality of life. Recent studies have shown that the services provided by trees and forests are many, such as conserving energy by shading buildings, filtering air pollution and controlling water runoff in urban areas. There are many recreational and aesthetic



(Above) Newly planted and staked seedlings can be seen at the Kentucky Millennium Grove at Berry Hill Mansion. (Left) First Lady Judi Patton and Sarah Gracey, an urban forester with the Division of Forestry, planted a seedling to kick off the event. (Below) Adrian Frazier, a Division of Forestry urban forester, assisted a group of Brownies in planting a tree in the grove.

Photos by Gwen Holt

but they also remind us of our country's rich history."

The concept of planting millennium groves is part of the White House Millennium Council's Millennium Green initiative. This initiative strives to encourage, promote and recognize the creation of healthier, more livable

benefits as well.

"Trees are much more than decorative ornaments," said Secretary Glickman. "As a society, we must begin to see them as part of our national green infrastructure, as important to the health and prosperity of the nation as our roads, bridges and ports. And I want to challenge every American to do their part to improve the nation's green infrastructure."

Visit the Millennium Green Web site at <http://millenniumgreen.usda.gov/> to find out how you can become involved in this initiative.

You can visit Kentucky's Millennium Grove at Berry Hill Mansion in Frankfort Monday through Friday between 8:00 and 4:30.



# Arsonists now the target of many groups

By Gwen Holt  
Division of Forestry

Of the 139,000 acres of Kentucky forests that burned last year, 80 percent fell victim to fires that were intentionally set.

Arson is the leading cause of forest fires in Kentucky, and that fact has gotten the attention of many in state government.

In March, James E. Bickford, secretary of the Natural Resources and Environmental Protection Cabinet, announced the creation of the Wildland Fire and Arson Prevention Task Force. The task force is a multi-agency initiative to stop the needless destruction of Kentucky's wildlands. Forests and other land that is not urban, developed or cultivated are classified as wildlands.

"The good citizens of the Commonwealth are sick and tired of the damage and other problems caused by those who intentionally set fire to our wildlands," said Bickford. "We are pleased to team up with these other agencies to put arsonists out of business."

The mission of the task force is to enhance cooperation and coordination between state, federal, local and non-government agencies involved in wildland fire and arson prevention efforts statewide.

The task force will focus on:

- √ Increasing public awareness about fire prevention, detection and reporting.
- √ Encouraging community involvement in fire prevention efforts.
- √ Ensuring the aggressive investigation, arrest and prosecution of those responsible for wildland arson.

The impact of wildland arson is enormous. Wildland fires cause significant risk to lives and property and a reduction in the timber value of our forests. The costs of fighting them are very high, and the fires lead to a reduction of air quality during periods of high fire incidence.

Intentionally setting fire to land owned by someone else is a Class D felony under Kentucky state law and is punishable by up



**This photograph was taken in Pike County during last year's severe drought.** Courtesy of David Perry, Lexington Herald-Leader

## Kentucky

### Division of Forestry offices

Betsy Lane	(606) 478-4495
Campbellsville	(270) 465-5071
Elizabethtown	(270) 766-5010
Hazard	(606) 435-6073
Madisonville	(270) 824-7527
Mayfield	(270) 247-3913
Morehead	(606) 784-7504
Pineville	(606) 337-3011
Stamping Ground	(502) 535-7741
Gilbertsville	(270) 362-8331
West Liberty	(606) 743-3511

to five years in prison and/or a fine of up to \$10,000.

If you suspect wildland arson activity, call the nearest Kentucky State Police post or the Target Arson Hotline at 1-800-27-ARSON. You can also call any Kentucky Division of Forestry office (a list of numbers is provided).

Help protect Kentucky's forests by obeying all open burning laws and supporting fire prevention and suppression efforts.

## Agencies involved in the task force

### State Agencies

Kentucky Department of Fish and Wildlife Resources  
Kentucky Department of Parks  
Eastern Kentucky University - College of Law Enforcement  
Kentucky National Guard  
Kentucky State Police  
Natural Resources and Environmental Protection Cabinet  
State Fire Marshal's Office  
Transportation Cabinet

### Federal Agencies

U.S. Forest Service

### Professional Associations

Kentucky Association of Chiefs of Police  
Kentucky Firefighters Association  
Kentucky Professional Firefighters  
Kentucky Sheriff's Association



# Conservation districts coordinate local cleanup

Story and photography by Curtis Kirk  
Division of Conservation

Tons of scrap metal, discarded appliances, retired farm equipment, fencing and other metal no longer litter farms, sinkholes and backyards across Kentucky. Local conservation districts and county farm bureaus teamed up with several counties to collect, bale and ship the materials to a recycling center.

These large-scale

Kentucky county farm bureaus to offer his company's services. Morris' firm coordinated metal recycling programs in a six-county pilot project in central Kentucky. Morris and his crew agreed to remove freon from discarded refrigerators and other appliances collected during the recycling program. The company accepted the items at



**Residents had the opportunity to recycle discarded appliances and other metal litter through the Franklin County Solid Waste Cleanup and Recycling Project. Deliveries were made to a designated area at the Frankfort Wal-Mart parking lot.**



**Refrigerators, stoves, washers and dryers were collected. Environmental Recycling Inc. removed all refrigerants in accordance with EPA regulations. The appliances were then recycled.**

community projects clean the landscape, raise awareness of the problem of illegal dumping and offer environmentally responsible alternatives to improper waste disposal. The programs encourage farmers, landowners and other residents in each county to clear dumps, sinkholes, tree lines, basements and other areas where scrap metal is stored.

H.C. Morris of Environmental Recycling Inc. contacted the Kentucky Farm Bureau and several central

no charge and profits when it sells the scrap metal to a recycling center. All work was done according to regulations of the U.S. Environmental Protection Agency, and certification and liability insurance covered all participants.

Wal-Mart agreed to use its stores as collection locations. Its high-traffic parking lots add visibility to the recycling projects.

An event in Franklin County provides a great

example of the projects' success. After a huge response to a metal recycling event in November, the Franklin County Farm Bureau, Franklin County Conservation District and Franklin County Fiscal Court sponsored a second major event during Commonwealth Cleanup Week, March 18-25. It proved more successful than the first event. Morris' firm collected 144 tons of trash, scrap metal, discarded wire and appliances in March, with only 17.5 tons going to a landfill.

Those tons included the cleanup of six sinkholes on farms in Franklin County. This was made possible through an environmental grant awarded to the Franklin County Conservation District by the Kentucky Division of

Conservation through the Kentucky Soil Erosion and Water Quality Cost Share Program.

The Franklin County event included efforts to educate the public about pollution problems while demonstrating the proper methods and benefits of cleaning up illegal dumps. The educational focus emphasized water quality, wildlife habitat enhancement and improvements in the quality of life.

Environmental Recycling Inc., conservation districts and farm bureaus have agreed to make these projects a statewide effort. The projects serve as excellent examples of Kentuckians going the extra mile to protect the environment and educate citizens about the problems caused by illegal dumping.

**Solid waste leaving Franklin County to be recycled.**





# Kentuckians honored at Frankfort Earth Day celebration

By Leslie Cole, Director  
Environmental Quality Commission

A newspaper reporter, a large Kentucky corporation and a high school environmental club are among those who received Earth Day awards from the Kentucky Environmental Quality Commission (EQC).

The awards recognize Kentuckians for their outstanding commitment and service in protecting the environment. The EQC honored its award winners on April 19, 2000, during a ceremony at the Kentucky History Center to celebrate the 30<sup>th</sup> anniversary of Earth Day.

This year's award recipients are:

- **Dick and Dot Crutcher (Lexington)** - for their efforts to protect the Kentucky River Palisades.
- **Tony Lewis (Viper)** - for his dedication to cleaning up Fort Branch Creek in Perry County.
- **Andy Mead (Lexington)** - for serving the public as a valuable and reliable source of information on environmental issues as the Lexington Herald-Leader's environmental reporter.
- **Sheldon Clark High School Environmental Club (Inez)** - for the club's efforts to promote waste reduction, recycling and litter abatement in its school and community.
- **Kenny Karem (Louisville)** - for working to protect and preserve the Falls of the Ohio and other natural areas in Jefferson County.
- **Brown-Forman Green Committee (Louisville)** - for setting a shining example of how corporations can become actively involved in cleaning up their communities.
- **Mary Benson, Kristen Geil, Anne Trussell, Shannon Duffy, Mackenzie Keller, Vanessa Parrish and Alison Roberts (Lexington)** - for their efforts to clean up Ecton Park in Lexington.
- **Carolyn Williams (Philpot)** - for establishing a recycling program and instilling an environmental ethic in her students at Philpot Elementary School.
- **Southern Appalachian Recycling Inc. (Whitesburg)** - for this nonprofit organization's commitment to promoting environmental awareness and recycling in the region.
- **Apollo High School Environmental Club (Owensboro)** - for building awareness of the need for all Kentuckians to be responsible stewards of the environment.

- **Sherri Evans (Frankfort)** - for her efforts over the past two decades to protect and preserve Kentucky's native plants and natural resources. This award was given posthumously.

• **EQC Earth Day Public Servant Award** - Jane Wilson Eller, director,

**Kentucky Environmental Education Council (Nicholasville)** - for her leadership in promoting environmental awareness and literacy in Kentucky through the development of the Environmental Education Master Plan.

(Left to right) Award recipients Vanessa Parrish, Anne Trussell, Mary Benson, Kristen Geil, Mackenzie Keller, Alison Roberts and Shannon Duffy stand with EQC Commissioner Bob Riddle after receiving their award for cleaning up Lexington's Ecton Park.  
Photo by EQC



## Life in the bigger cities targeted by cabinet and EPA

By Larry Garrison  
Division for Air Quality

When residents of Louisville, Lexington and Paducah take a deep breath, how clean is the air that enters their lungs? That's the question the Kentucky Division for Air Quality and the U.S. Environmental Protection Agency (EPA) hope to answer with a new study.

The research targets "air toxics," hazardous pollutants known or suspected to cause serious health problems. The toxics come from a variety of sources, including industry, motor vehicles, gas stations, dry cleaners and painting operations. The EPA has identified more than 180 air toxics, which exist in the forms of particulate matter and gases. The various forms and large numbers of these pollutants make them difficult to monitor.

Since the late 1980s, the Division for Air Quality has focused its air toxics monitoring on known problem areas, such as those where there is a heavy concentration of industry. Now, the division is expanding its monitoring efforts by assessing citywide air toxics in several of Kentucky's urban areas during 2000 and 2001.

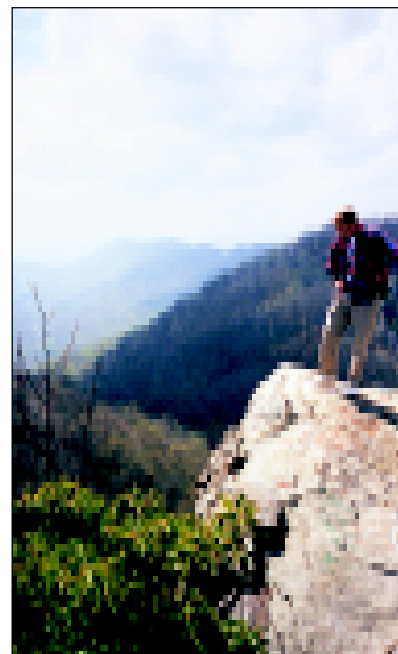
In April, the division began taking samples with 28 air toxics monitors located in Ashland, Fort Thomas, Lexington, Owensboro, Paducah and Shepherdsville. While the division does its work in these cities, the EPA, the Air Pollution Control Board of Jefferson County and the University of Louisville are focusing on west Louisville. The Louisville research includes 36 air toxics monitors. Environmental scientists plan to run monitors in each city for at least a year. The data generated by the monitors will help state, local and federal officials make better decisions on how to control air toxics emissions.



(Left) Board member Horace Brown views the forest from a large sandstone cave on the Stone Mountain property.

(Right) David Frost with the city of Paducah inspects Yellow Rocks at the top of the Stone Mountain property.

(Below) Don Dott, executive director of the Kentucky State Nature Preserves Commission, navigates a deep mud hole on the access road to Stone Mountain (and he didn't get stuck)!



## Field trip takes group to remote areas

**D**o you have fond memories of school field trips you took as a child? The Kentucky Heritage Land Conservation Fund Board (KHLCFB) decided to revisit those days by holding its April meeting at the Benham School House Inn in Harlan County.

Since 1995, nine different Kentucky Heritage Land Conservation projects have been approved in Harlan County. Project leaders have completed six of the nine purchases, and the KHLCFB decided to visit several of those sites.

Board members made their first stop at the Stone Mountain Wildlife and Recreation Area project. The Harlan County Fiscal Court purchased this 1,025-acre site in 1998. The purpose of this project is to preserve and protect a portion of the north face of Stone Mountain, to restore forest habitat and associated wildlife, and to provide opportunities for wildlife and nature-related recreation.

Harlan County residents Jerry Blanton, Morgan Miller and Susie Lewis led the field trip to Stone Mountain. The group visited areas that are quite remote, and the terrain was almost impassable in several areas. Dr. William H. Martin, chair of the Kentucky Heritage Land Conservation Fund Board, and Marc Evans, senior ecologist with the Kentucky State Nature Preserves Commission, provided commentary. According to Evans, this site is especially important because it is a large block of mountain forest that provides diverse habitats for a number of threatened and endangered species.

*Story and Photography by Mary Jean Eddins  
Department for Natural Resources*

The board made the Hi Lewis Pine Barrens project its next stop. The project represents the best of only a few known remaining pine savanna/woodland communities in the state of Kentucky. This forest type is one of the most endangered in the state and supports numerous rare plant species. The Hi Lewis Pine Barrens consists of a 164-acre tract that was dedicated as a Kentucky State Nature Preserve in 1997. The Kentucky State Nature Preserves Commission hopes additional acreage can be purchased at this site.



Finally, the board visited Black Mountain. Board members approved funding for appraisals of the mineral and timber resources on a portion of Black Mountain in July 1999. Black Mountain has the highest elevation in Kentucky (4,150 feet), a fact that was very evident to the board on this trip. Trees were in full leaf at the base of the mountain; trees at the top of Black Mountain were still dormant. Board members saw rain at the base of Black Mountain, while sleet and clouds at

the top greatly reduced visibility. The state hopes to purchase timber and mineral rights above the 3,800-ft. elevation on the mountain.

This would protect the area from mining and timber cutting.

The next regularly scheduled meeting of the Kentucky Heritage Land Conservation Fund Board will be July 17, 2000, at the offices of the Department for Natural Resources, 663 Teton Trail in Frankfort. In October, the board is planning a site-inspection trip of Heritage Land projects in Jefferson County. Look for a story about that trip later in the year.

# Task force reports on Paducah plant: more money and quicker cleanup needed

By Mark York, Secretary's Office, and  
Matthew Hackathorn, Division of Waste Management



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**"I hope this report helps ease any unfounded fears about public health. I also think it's important for the public to know exactly what has been detected during monitoring efforts."**

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Task Force Chairman Jack Conway

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A new strategy should be finalized to complete cleanup of contaminated sites at the Paducah Gaseous Diffusion Plant (PGDP) more quickly and efficiently.

That's one of the findings of a state task force examining cleanup efforts at the plant in western Kentucky. The plant enriches uranium for use by commercial nuclear facilities.

The task force report on the plant also demands continued efforts to increase U.S. Department of Energy (DOE) funding in order to meet a 2010 cleanup deadline. The report says, "Recent funding levels are alarmingly inadequate to meet the costs of accomplishing the projected cleanup."

The Energy Department originally estimated the cleanup at between \$700 million to \$1 billion. Later, the federal government's General Accounting Office issued a report indicating it would cost up to \$2.4 billion more to address environmental cleanup at the plant.

The state task force on PGDP consists of representatives from the governor's office, the Cabinet for Health Services, and the Natural Resources and Environmental Protection Cabinet. Gov. Paul Patton appointed the panel in August 1999 following reports of worker exposure to radiation hazards at the plant.

After several weeks of work, the fact-finding task force notified the governor that it believed no immediate threat to public health existed in the immediate vicinity of the PGDP that had not been previously disclosed and posted. Details on health risk assessments conducted at the site are included in the report, along with information on the contamination of soil, sediment, surface water and groundwater.

"I hope this report helps ease any



unfounded fears about public health," said Task Force Chairman Jack Conway. "I also think it's important for the public to know exactly what has been detected during monitoring efforts. Gov. Patton and the Commonwealth will remain vigilant in pressing the DOE, the U.S. Congress and

the administration to complete its obligation to clean up the environmental hazards at PGDP as quickly as possible."

In addition to the cleanup effort already underway, here are some of the major environmental concerns identified in the task force report:

- The lack of information received from the federal government regarding the locations and contents of various landfills and solid waste disposal units.
- The failure of DOE to identify the source of the contamination of the groundwater migrating away from the PGDP and toward the Ohio River.
- The need for DOE to characterize the environmental damage beneath "Drum Mountain," a large pile of scrap metal.
- The adequacy and funding of the federal government's cleanup plan to meet its legal responsibility under the Federal Facilities Agreement to remediate environmental damage at PGDP by the year 2010.

The full text of the state fact-finding report can be requested from the Communications Office, Room 112 of the Capitol, or accessed on the Web at [www.state.ky.us/agencies/gov/padrpt.pdf](http://www.state.ky.us/agencies/gov/padrpt.pdf)

**(Above) Drum Mountain, where thousands of rusting drums release radionuclides and other contaminants, is a cleanup priority.**  
Photo by Division of Waste Management



# Twenty-six years of changes

The Department for Surface Mining Reclamation and Enforcement (DSMRE) is generally thought of as an agency. It is easy to forget that “the agency” is composed of individuals, 407 in fact. Many have dedicated their careers to working for the DSMRE. The purpose of this article is to introduce you to one of the department’s most loyal members, who shares her insights about how the DSMRE has changed throughout her career.

*Story and photograph by  
Ralph King and Janey Emery*

*Department for Surface Mining Reclamation and Enforcement*

**J**aney Emery has been with the department for 26 years. During that time, she has held several positions; she currently works as an environmental inspector in the Middlesboro Regional Office. Her story is similar to that of many other employees. Here are the experiences Emery shared with Ralph King, also with the DSMRE.

**King:** Janey, I know that you are a Kentucky native. Tell me about yourself and your early experiences with coal mining.

**Emery:** I was born in Bell County, at the head of Cubage Branch, the fourth of six children. My family has lived in the same spot ever since my ancestors came to Kentucky with the early settlers.

In the early sixties, the ridges behind my house were strip mined for the coal reserves. In those days surface mining meant “push and shove”... cut into the mountain, shove it down the hill, haul the coal away, plant a few trees and then move onto the next hill. Anything that occurred outside the daily routine was very exciting for a 6-year-old girl. So after school I watched the equipment operate and listened for the booms caused by the blasting.

At that time, Kentucky had laws and regulations on how companies were to conduct surface mining, but they bore little resemblance to what we call “reclaimed” today. The cuts made were not backfilled; the coal pits often held water or were regraded to carry the drainage into the natural drains on the hill or into the creek.

As a matter of fact, we used to carry our water in buckets from the branch in

front of the house. The access road to the coal mine drained right into this branch about 200 feet above our water pool. Well, since regulations failed to address water quality during those years, it wasn’t long before the runoff from the mine polluted the branch. That forced us to get water from the branch behind our house and up the hollow a bit where there was no mining disturbance in the watershed.

**King:** How did this childhood experience affect you?

**Emery:** Those events cast the mold for the environmental inspector I am today. I understood at a very young age that man must mine the coal because the benefits are necessary, but miners must be sure to protect the natural resources in the process.

**King:** Many of the department’s inspectors have childhood backgrounds tied to the land, growing up on Kentucky’s farms, sons of loggers or daughters of fishermen. Their intimate connection to the natural resources was a strong influence to become involved in environmental regulation. When did you become involved?

**Emery:** As fate would have it, I was offered a clerk-typist position at the Kentucky Division of Reclamation in Middlesboro in 1974. Since that day, I have held 12 different titles. I transferred to the Frankfort office to work as a procedure development coordinator, then an environmental program coordinator. I had begun college as a part-time student in 1973. Fortunately, the department’s tuition assistance program enabled me to obtain a mining technology degree and earn a promotion at the same time. In



1990, I returned to Middlesboro to be a reclamation inspector and then an environmental inspector specializing in performance bond release. Now I have the final say on the quality of reclamation, and you can bet that no miner leaves the hill before all the requirements in the permit are met.

**King:** How has the “agency” changed during your 26 years of employment?

**Emery:** When I began, the Middlesboro office covered surface mining activity in 15 counties with eight inspectors and two secretaries. One of my first responsibilities was to issue a permit to mine coal. The permit consisted of four pages: an “Application” showing name and address, etc.; a “Method of Operation” that talked about coal seams and haul roads; a “Planting Report” stating vegetative types to be planted after mining; and the permit certificate itself. Today, it is not uncommon for a permit to contain as many as 2,000 pages.



# in surface mining

The first big change in the agency occurred in August 1977 with the enactment of Public Law 95-87. The cuts or highwalls had to be eliminated, quality for surface and underground mining had to be protected and meet standards, soils had to be segregated, and there were more ways for citizens to be involved in the

permitting and enforcement process. The federal Office of Surface Mining was created and things really began to rock. State and federal inspectors both inspected the coal companies. This was called the interim program. It was a time of learning not only for the regulators but for the industry as well. We learned that coal removal and reclamation were like pieces of a puzzle: they fit together. Mine plans were developed to reclaim mine sites to a productive use. Industry innovations provided the methods to improve water treatment facilities and erosion control techniques.

By May 1978, our office had added another secretary, assigned 11 counties to a new regional office in London and hired 20 more inspectors to inspect the remaining four counties.

The state earned primacy in 1982, which changed the role of the federal inspector to an oversight position. In 1984, the surface effects of underground mines were added to the list of inspectable units; later, coal preparation plants and loading facilities were included. The federal law caused a bunch of changes. But all those changes add up to better environmental quality in the coalfields.

**King:** What would you say to a young person about your job?

**Emery:** I love my job and the people I work with, including interagency, industry and the public. I spend some days in the office reviewing the reclamation plans and certifications of constructions. Other days I spend outdoors walking the hills making on-site inspections. On many

occasions I have thought to myself, "I can't believe I actually get paid to do this..."

By the way, guess where I live? My home is the same house on the same spot where I grew up. The Abandoned Mine Lands Program has reclaimed the old mine from my childhood. The grass is green, the water is clear and the view of the mountain is breathtaking.

## Regional offices

The Department for Surface Mining Reclamation and Enforcement has regional offices throughout Kentucky. If you have questions or concerns about local issues, you may call the numbers listed below:

<b>Frankfort</b>	<b>(502) 564-6940</b>
<b>London</b>	<b>(606) 878-0098</b>
<b>Madisonville</b>	<b>(270) 824-7536</b>
<b>Middlesboro</b>	<b>(606) 248-6166</b>
<b>Pikeville</b>	<b>(606) 433-7726</b>
<b>Prestonsburg</b>	<b>(606) 886-8536</b>

## Division of Abandoned Lands

<b>London</b>	<b>(606) 878-0071</b>
<b>Madisonville</b>	<b>(270) 824-7534</b>
<b>Prestonsburg</b>	<b>(606) 886-1786</b>

## Applying for a DSMRE job

If you are interested in applying for a job with the Department for Surface Mining Reclamation and Enforcement, contact the cabinet's Personnel Branch, 4th Floor, Capital Plaza Tower, Frankfort, KY 40601 or phone (502) 564-2042.

Personnel staff will assist you with the steps necessary to become eligible for consideration for a specific position.

## New mining Web site offers education and site-specific information

**By Heather Frederick**  
**Public Information and Education Branch**

All you ever wanted to know about coal mining in Kentucky is now available on a new Web site designed by the Department for Surface Mining Reclamation and Enforcement (DSMRE).

If you're not familiar with coal mining topics, you'll find plenty of help on the new site. It contains a glossary and numerous educational materials that make the site easy for the general public to understand. Those who want to know about specific coal mining projects can obtain this information through a page labeled "Surface Mining Information System (SMIS)." The SMIS allows visitors to look up information on permit applications, inspections, enforcement actions, bonding and reclamation. Users can search for this information by company name or permit number.

"Through advancements in technology provided by EMPOWER Kentucky, Gov. Paul Patton's initiative to improve the delivery of service in state government, DSMRE is now able to provide the public with Internet access to our extensive SMIS system. Because of this initiative, we are able to provide our services in a much more efficient manner, not only to the industry we regulate, but to all the citizens of the Commonwealth," said Commissioner Carl Campbell.

The information on the SMIS site will be constantly updated to make the system as useful as possible for members of the public and the coal mining industry. It does not provide any confidential information.

The department also used EMPOWER funds to establish electronic applications for mining permits. These application forms are also available on the new Web site. You'll find the Web site at <http://www.nr.state.ky.us/nrepc/dsmre/nrdsmre/dsmrehome.htm>.



**Mark your calendar for this upcoming event:**



## **25th Annual Governor's Conference on the Environment**

# **October 30-31, 2000**

**This year's conference will be held at the Embassy Suites, 1801 Newtown Pike, in Lexington, Kentucky. Make your room reservation today by calling (606) 455-5000 or 1-800-EMBASSY.**

**For conference registration information, contact Boyce Wells at (502) 564-2150.**



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